

Message

From: Aubee, Catherine [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=18E81C76BBA145F1948ED5641919DEB1-AUBEE, CATHERINE]
Sent: 3/31/2021 2:59:13 PM
To: Lara, Rhina [Lara.Rhina@epa.gov]; Giles-Parker, Cynthia [Giles-Parker.Cynthia@epa.gov]; Saunders, Jennifer [Saunders.Jennifer@epa.gov]; Leifer, Kerry [Leifer.Kerry@epa.gov]
CC: Laws, Meredith [Laws.Meredith@epa.gov]; Johnson, Marion [Johnson.Marion@epa.gov]
Subject: RE: PFAS in Pesticide Packaging Inquiry: MN Dept of Ag, DDL 3/30 1 PM

Great – thanks. No other comments from me.

Best,
Catherine

From: Lara, Rhina <Lara.Rhina@epa.gov>
Sent: Wednesday, March 31, 2021 10:52 AM
To: Aubee, Catherine <Aubee.Catherine@epa.gov>; Giles-Parker, Cynthia <Giles-Parker.Cynthia@epa.gov>; Saunders, Jennifer <Saunders.Jennifer@epa.gov>; Leifer, Kerry <Leifer.Kerry@epa.gov>
Cc: Laws, Meredith <Laws.Meredith@epa.gov>; Johnson, Marion <Johnson.Marion@epa.gov>
Subject: RE: PFAS in Pesticide Packaging Inquiry: MN Dept of Ag, DDL 3/30 1 PM

Hi Catherine,

Yes, I'll add ORD. I also edited number 5!

1. *Given that EPA has maintained that no PFAS chemicals are registered as pesticide active ingredients, why are some pesticide active ingredients included in this master list?*

Each pesticide product submitted for registration is evaluated considering all the ingredients in the product, including both active and inert ingredients. The pesticide active ingredients included in the EPA Office of Research and Development (ORD) PFAS Master List are included due to their fluorinated structures. However, currently registered pesticides do not contain ingredients that have structures or properties comparable to prominent PFAS.

2. *Is the EPA's conclusion that no pesticide active ingredients are PFAS based on a different definition? If so, what definition is being used.*

EPA's Office of Pollution Prevention and Toxics applies the following "working definition" when identifying PFAS on the TSCA Inventory: a structure that contains the unit R-CF₂-CF(R')(R''), where R, R', and R'' do not equal "H" and the carbon-carbon bond is saturated (note: branching, heteroatoms, and cyclic structures are included).

3. *How is this master list created?*

Ex. 5 Deliberative Process (DP)

4. *Do these pesticides qualify as PFAS or are they included only because researchers have interest in them?*

Ex. 5 Deliberative Process (DP)

5. *Are there any known potential concerns about these pesticide active ingredients?*

Ex. 5 Deliberative Process (DP)

Best,
Rhina M. Lara (*she/her/hers*)
Communications Branch
Office of Chemical Safety and Pollution Prevention
U.S. Environmental Protection Agency
Phone: (202) 815- 5722

From: Aubee, Catherine <Aubee.Catherine@epa.gov>
Sent: Wednesday, March 31, 2021 10:47 AM
To: Lara, Rhina <Lara.Rhina@epa.gov>; Giles-Parker, Cynthia <Giles-Parker.Cynthia@epa.gov>; Saunders, Jennifer <Saunders.Jennifer@epa.gov>; Leifer, Kerry <Leifer.Kerry@epa.gov>
Cc: Laws, Meredith <Laws.Meredith@epa.gov>; Johnson, Marion <Johnson.Marion@epa.gov>
Subject: RE: PFAS in Pesticide Packaging Inquiry: MN Dept of Ag, DDL 3/30 1 PM

Hi Rhina:

Can we qualify the Master List as the EPA Office of Research and Development Master List (if that is appropriate)?

For number 5, I think we should use the standard registration language, something like below.

EPA reviews all ingredients included in a pesticide product before granting approval. Lufenuron, noviflumuron, tetraconazole, and pyrifluquinazon have each undergone risk assessments with chemical-specific data to ensure there is reasonable certainty of no harm to human health when used as directed on the label.

Best,
Catherine

From: Lara, Rhina <Lara.Rhina@epa.gov>
Sent: Wednesday, March 31, 2021 10:32 AM
To: Giles-Parker, Cynthia <Giles-Parker.Cynthia@epa.gov>; Saunders, Jennifer <Saunders.Jennifer@epa.gov>; Leifer, Kerry <Leifer.Kerry@epa.gov>; Aubee, Catherine <Aubee.Catherine@epa.gov>
Cc: Laws, Meredith <Laws.Meredith@epa.gov>; Johnson, Marion <Johnson.Marion@epa.gov>
Subject: RE: PFAS in Pesticide Packaging Inquiry: MN Dept of Ag, DDL 3/30 1 PM
Importance: High

Hi All,

Sorry to press, but just want to make sure we are good to go with the response below. I am hoping to get this to OPP IO for review by 12 PM today.

Thank you so much!

Best,
Rhina M. Lara (*she/her/hers*)

From: Lara, Rhina
Sent: Tuesday, March 30, 2021 5:32 PM
To: Giles-Parker, Cynthia <Giles-Parker.Cynthia@epa.gov>; Saunders, Jennifer <Saunders.Jennifer@epa.gov>; Leifer, Kerry <Leifer.Kerry@epa.gov>; Aubee, Catherine <Aubee.Catherine@epa.gov>
Cc: Laws, Meredith <Laws.Meredith@epa.gov>; Johnson, Marion <Johnson.Marion@epa.gov>
Subject: RE: PFAS in Pesticide Packaging Inquiry: MN Dept of Ag, DDL 3/30 1 PM
Importance: High

Perfect, thank you!

So here is where we have landed with the response. Let me know if we all agree and this is okay to submit for OPP IO approval.

Note: I got a definition for PFAS from OPPT and added it to question 2.

1. ***Given that EPA has maintained that no PFAS chemicals are registered as pesticide active ingredients, why are some pesticide active ingredients included in this master list?***

Each pesticide product submitted for registration is evaluated considering all the ingredients in the product, including both active and inert ingredients. The pesticide active ingredients included in the PFAS Master List are included due to their fluorinated structures. However, currently registered pesticides do not contain ingredients that have structures or properties comparable to prominent PFAS.

2. ***Is the EPA's conclusion that no pesticide active ingredients are PFAS based on a different definition? If so, what definition is being used.***

EPA's Office of Pollution Prevention and Toxics applies the following "working definition" when identifying PFAS on the TSCA Inventory: a structure that contains the unit R-CF₂-CF(R')(R''), where R, R', and R'' do not equal "H" and the carbon-carbon bond is saturated (note: branching, heteroatoms, and cyclic structures are included).

3. ***How is this master list created?***

Ex. 5 Deliberative Process (DP)

4. ***Do these pesticides qualify as PFAS or are they included only because researchers have interest in them?***

Ex. 5 Deliberative Process (DP)

5. ***Are there any known potential concerns about these pesticide active ingredients?***

Ex. 5 Deliberative Process (DP)

Best,
Rhina M. Lara (*she/her/hers*)
Communications Branch
Office of Chemical Safety and Pollution Prevention
U.S. Environmental Protection Agency
Phone: (202) 815- 5722

From: Giles-Parker, Cynthia <Giles-Parker.Cynthia@epa.gov>
Sent: Tuesday, March 30, 2021 5:26 PM
To: Lara, Rhina <Lara.Rhina@epa.gov>; Saunders, Jennifer <Saunders.Jennifer@epa.gov>; Leifer, Kerry <Leifer.Kerry@epa.gov>; Aubee, Catherine <Aubee.Catherine@epa.gov>
Cc: Laws, Meredith <Laws.Meredith@epa.gov>; Johnson, Marion <Johnson.Marion@epa.gov>
Subject: RE: PFAS in Pesticide Packaging Inquiry: MN Dept of Ag, DDL 3/30 1 PM

It can be included in the general response with the other chemicals. If information on the re-evaluation of actives is not part of the response, then no need to add it for tetraconazole.

From: Lara, Rhina <Lara.Rhina@epa.gov>
Sent: Tuesday, March 30, 2021 2:33 PM
To: Giles-Parker, Cynthia <Giles-Parker.Cynthia@epa.gov>; Saunders, Jennifer <Saunders.Jennifer@epa.gov>; Leifer, Kerry <Leifer.Kerry@epa.gov>; Aubee, Catherine <Aubee.Catherine@epa.gov>
Cc: Laws, Meredith <Laws.Meredith@epa.gov>; Johnson, Marion <Johnson.Marion@epa.gov>
Subject: RE: PFAS in Pesticide Packaging Inquiry: MN Dept of Ag, DDL 3/30 1 PM

Thank you, Cynthia. Does that mean **Ex. 5 Deliberative Process (DP)**?

5. *Are there any known potential concerns about these pesticide active ingredients?*

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)?

Best,
Rhina M. Lara (*she/her/hers*)
Communications Branch
Office of Chemical Safety and Pollution Prevention
U.S. Environmental Protection Agency
Phone: (202) 815- 5722

From: Giles-Parker, Cynthia <Giles-Parker.Cynthia@epa.gov>
Sent: Tuesday, March 30, 2021 12:34 PM
To: Saunders, Jennifer <Saunders.Jennifer@epa.gov>; Lara, Rhina <Lara.Rhina@epa.gov>; Leifer, Kerry <Leifer.Kerry@epa.gov>; Aubee, Catherine <Aubee.Catherine@epa.gov>
Cc: Laws, Meredith <Laws.Meredith@epa.gov>; Johnson, Marion <Johnson.Marion@epa.gov>
Subject: RE: PFAS in Pesticide Packaging Inquiry: MN Dept of Ag, DDL 3/30 1 PM

The Scoping Document is in the Docket. There not any outstanding HED data. The ID for tetraconazole has not been published/completed. The ID is expected in 2022.

From: Saunders, Jennifer <Saunders.Jennifer@epa.gov>

Sent: Tuesday, March 30, 2021 11:01 AM

To: Lara, Rhina <Lara.Rhina@epa.gov>; Leifer, Kerry <Leifer.Kerry@epa.gov>; Aubee, Catherine <Aubee.Catherine@epa.gov>

Cc: Giles-Parker, Cynthia <Giles-Parker.Cynthia@epa.gov>; Laws, Meredith <Laws.Meredith@epa.gov>; Johnson, Marion <Johnson.Marion@epa.gov>

Subject: RE: PFAS in Pesticide Packaging Inquiry: MN Dept of Ag, DDL 3/30 1 PM

Hi Rhina, I'm not sure exactly what you need for the last question for the actives. For noviflumuron, the ID was published in 2018 (<https://www.regulations.gov/document/EPA-HQ-OPP-2014-0566-0018>) and states "The Agency concluded that human exposure to noviflumuron is expected to be negligible for the currently registered uses, and that there are no dietary, residential, occupational, or aggregate risks of concern."

From: Lara, Rhina <Lara.Rhina@epa.gov>

Sent: Tuesday, March 30, 2021 10:55 AM

To: Leifer, Kerry <Leifer.Kerry@epa.gov>; Aubee, Catherine <Aubee.Catherine@epa.gov>

Cc: Giles-Parker, Cynthia <Giles-Parker.Cynthia@epa.gov>; Saunders, Jennifer <Saunders.Jennifer@epa.gov>; Laws, Meredith <Laws.Meredith@epa.gov>; Johnson, Marion <Johnson.Marion@epa.gov>

Subject: RE: PFAS in Pesticide Packaging Inquiry: MN Dept of Ag, DDL 3/30 1 PM

Importance: High

Hi Kerry,

Thank you for suggesting I reach out to ORD! I am working on questions 3 and 4 with them. Their explanation of the EPA CompTox Chemicals Dashboard helped me edit question 1. Here are the questions and responses that will still need RD input.

1. *Given that EPA has maintained that no PFAS chemicals are registered as pesticide active ingredients, why are some pesticide active ingredients included in this master list?*

Each pesticide product submitted for registration is evaluated considering all the ingredients in the product, including both active and inert ingredients. Pesticide active ingredients on the list are included because they have small substructural elements similar to those of the substructures that informed the creation of the PFAS Master List. Pesticides that have small PFAS substituents could produce PFAS through various processes. However, currently registered pesticides do not contain ingredients that have structures or properties comparable to prominent PFAS.

2. *Is the EPA's conclusion that no pesticide active ingredients are PFAS based on a different definition? If so, what definition is being used.*

There are numerous definitions of PFAS, some which are quite broad and include any "man-made chemical with at least one fully fluorinated carbon atom." Regardless of chemical structure, ingredients in pesticide products are subject to a risk assessment process prior to approval. While some pesticide chemicals have fluorinated structures, currently registered pesticides do not contain ingredients that have structures or properties comparable to prominent PFAS.

3. *How is this master list created?*

Working with ORD on response.

Ex. 5 Deliberative Process (DP)

4. *Do these pesticides qualify as PFAS or are they included only because researchers have interest in them?*

Working with ORD on response.

Ex. 5 Deliberative Process (DP)

5. *Are there any known potential concerns about these pesticide active ingredients?*

Best,

Rhina M. Lara (*she/her/hers*)

Communications Branch

Office of Chemical Safety and Pollution Prevention

U.S. Environmental Protection Agency

Phone: (202) 815- 5722

From: Leifer, Kerry <Leifer.Kerry@epa.gov>

Sent: Monday, March 29, 2021 1:03 PM

To: Lara, Rhina <Lara.Rhina@epa.gov>; Aubee, Catherine <Aubee.Catherine@epa.gov>

Cc: Giles-Parker, Cynthia <Giles-Parker.Cynthia@epa.gov>; Saunders, Jennifer <Saunders.Jennifer@epa.gov>; Laws, Meredith <Laws.Meredith@epa.gov>; Johnson, Marion <Johnson.Marion@epa.gov>

Subject: RE: PFAS in Pesticide Packaging Inquiry: MN Dept of Ag, DDL 3/30 1 PM

Hi Rhina,

Questions 3 and 4 are related to the EPA CompTox Chemicals Dashboard, which is a project of the Center for Computational Toxicology and Exposure/ORD. I would think they would be in the best position to answer those questions.

I am trying to track down the registration status of lufenuron, noviflumuron, tetraconazole, and pyrifluquinazon but my OPPIN connection is spotty right now. I know tetraconazole is one of the Fungicide Branch's chemicals and the other three chemicals are all insecticides so they would be in one of the RD IVB's. I've copied the FB and the three IVB Branch Chiefs on this message.

Kerry Leifer, Chief

Chemistry, Inerts and Toxicology Assessment Branch

Registration Division (7505P)

Office of Pesticide Programs

U.S. Environmental Protection Agency

1200 Pennsylvania Ave. NW
Washington, DC 20460
tel: (703) 308-8811
fax: (703) 605-0781

e-mail: leifer.kerry@epa.gov

From: Lara, Rhina
Sent: Monday, March 29, 2021 11:48 AM
To: Aubee, Catherine <Aubee.Catherine@epa.gov>
Cc: Leifer, Kerry <Leifer.Kerry@epa.gov>
Subject: PFAS in Pesticide Packaging Inquiry: MN Dept of Ag, DDL 3/30 1 PM
Importance: High

Hi Catherine and Kerry,

We received an inquiry through the PFAS in Pesticide Packaging inbox regarding certain active ingredients in pesticides (Lufenuron, Noviflumuron, Tetraconazole, and Pyrifluquinazon) and whether they are considered PFAS. I tried to answer two of the questions using some of our previously approved responses, but will need your help in answering the others. We don't have a strict deadline on these, but would like to have an answer prepped by Wednesday morning.

Here is the incoming message:

I am Raj Mann, Section Manager for the Pesticide Non-point Section at the Minnesota Department of Agriculture. I have few questions regarding PFAS chemicals and pesticide active ingredients.

In our last call on March 5, EPA confirmed that no PFAS chemicals are registered as pesticides. However, while reading more about these chemicals, I came across the following EPA webpage which hosts a master list of PFAS chemicals: https://comptox.epa.gov/dashboard/chemical_lists/pfasmaster. Several pesticide active ingredients appear in the PFAS master list, including Lufenuron, Noviflumuron, Tetraconazole, and Pyrifluquinazon. The reason for the inclusion of these pesticide active ingredients is unclear beyond the fact that they contain fluorine atoms. The webpage states that there is no clear definition of PFAS chemicals (see excerpt below).

"There is no precisely clear definition of what constitutes a PFAS substance given the inclusion of partially fluorinated substances, polymers, and ill-defined reaction products on these various lists. Hence, PFASMASTER serves as a consolidated list of substances spanning and bounded by the below lists, defining a practical boundary of PFAS chemical space (within DSSTox) of current interest to researchers and regulators worldwide. This PFAS Master List will continue to expand as component lists grow. (Last Updated: September 16th 2020)."

My questions are as follows:

1. Given that EPA has maintained that no PFAS chemicals are registered as pesticide active ingredients, why are some pesticide active ingredients included in this master list?
2. Is the EPA's conclusion that no pesticide active ingredients are PFAS based on a different definition? If so, what definition is being used.
3. How is this master list created?
4. Do these pesticides qualify as PFAS or are they included only because researchers have interest in them?
5. Are there any known potential concerns about these pesticide active ingredients?

Response:

1. *Given that EPA has maintained that no PFAS chemicals are registered as pesticide active ingredients, why are some pesticide active ingredients included in this master list?*

Ex. 5 Deliberative Process (DP)

2. *Is the EPA's conclusion that no pesticide active ingredients are PFAS based on a different definition? If so, what definition is being used.*

Ex. 5 Deliberative Process (DP)

3. *How is this master list created?*
4. *Do these pesticides qualify as PFAS or are they included only because researchers have interest in them?*
5. *Are there any known potential concerns about these pesticide active ingredients?*

Best,
Rhina M. Lara (*she/her/hers*)
Communications Branch
Office of Chemical Safety and Pollution Prevention
U.S. Environmental Protection Agency
Phone: (202) 815- 5722